

REMARKS

The Examiner is thanked for the clarity and conciseness of the Office Action, and for the citation of references, which have been studied with interest and care.

This Amendment is in response to the Office Action mailed December 22, 2000. In the Office Action, the Office Action objected to the drawings and rejected (i) claims 2 and 6 under 35 U.S.C. §112, second paragraph, and (ii) claims 1-16 under 35 U.S.C. §102(e).

Applicant has cancelled claims 2, 3, and 6 without prejudice and has amended claims 1, 5, 9, 14, and 16. Accordingly, claims 1, 4, 5, and 7-16 are pending. Reconsideration of the rejections set forth in the Office Action is respectfully requested.

I. DRAWINGS

In the Office Action, the drawings were objected to by the Draftsperson as noted in the form PTO 948. Applicant respectfully requests postponement in submitting the formal drawings until the pending claims have been allowed.

II. OBJECTIONS

Applicant has amended claim 16 solely for the purpose of overcoming the informality cited by the Office Action and not for reasons related to the statutory requirements of patentability.

III. REJECTION UNDER 35 U.S.C. § 112

The Office Action rejected claims 2 and 6 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant respectfully disagrees with the Office Action but has canceled these claims in order to expedite prosecution of the case.

IV. REJECTIONS UNDER 35 U.S.C. § 102(e)

The Office Action rejected claims 1-16 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 5,796,735 issued to Miller, et al. (Miller).

Anticipation requires that each and every element as set forth in the claim be found, either expressly or inherently described, in a single prior art reference. MPEP § 2131; Verdegaal Bros. v. Union Oil Co. of California, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Further, "[t]he identical invention must be shown in as complete detail as is contained in the [patent] claim." MPEP § 2131 (emphasis added).

Applicant respectfully submits that amended independent claims 1, 5, 9, 14 are not anticipated by Miller because the elements of these claims are not disclosed in Miller. Further, the invention disclosed in Miller is not the identical invention as recited by Applicant's amended independent claims 1, 5, 9, and 14. In fact, Miller discloses a substantially different invention. Miller discloses a segmentation and reassembly circuit under the ATM standard that uses a transmit cell schedule table to support real-time transmission of ATM cells. (Abstract of Miller (emphasis added)).

On the other hand, Applicant's amended claim 1 discloses a method comprising performing ATM segmentation functions with a segmentation and reassembly (SAR) software module implemented in a CPU, along with other elements. Similarly, Applicant's amended claim 9 discloses a method comprising performing ATM reassembly functions with a segmentation and reassembly (SAR) software module implemented in a CPU, along with other elements.

As the Applicant points out in the application itself, by utilizing a software module implemented in a CPU to perform these functions, "significant hardware savings may be had over a hardware implementations of any SAR chip." (Application, page 8, lines 22-

23). Thus, Applicant by using a software module to perform similar functions, provides significant advantages over the prior art. Although, the Office Action on page 4 points out that Miller discloses a software driver which runs on the host computer to provide control of the operation of the SAR circuit (Miller col. 5, lines 51-54 (emphasis added)), this does not disclose Applicant's SAR software module implemented in a CPU to perform the similar functions of Miller by software instead of the hardware SAR circuit disclosed in Miller. Accordingly, because Miller does not disclose the elements of Applicant's amended claims 1 and 9 and does not disclose the identical invention, anticipation is not present.

In a similar vein, Applicant has amended claim 5 to disclose a code section including segmentation instructions implemented in the CPU to perform the operation of segmenting data and claim 14 to include reassembly instructions implemented in the CPU to perform the operation of the reassembly of data. Similarly, this is very different than the Miller invention, which uses a SAR circuit to perform the operation of segmenting and reassembling data, as opposed to Applicant's invention wherein the CPU performs these function as instructed by the software code.

Accordingly, Applicant respectfully submits that Applicant's amended claims 1, 5, 9 and 14 are not anticipated by Miller and should be allowed. Therefore, withdrawal of this ground for rejection is respectfully submitted. Furthermore, the dependent claims should be patentable for being dependent from allowable base claims.



VERSION WITH MARKINGS TO SHOW CHANGES MADE

1 1. (Amended) A method [of performing asynchronous transfer mode (ATM)
2 segmentation functions] comprising [the operations of]:
3 performing asynchronous transfer mode (ATM) segmentation functions with a
4 segmentation and reassembly (SAR) software module implemented in a central processing
5 unit (CPU) including,
6 receiving data to send;
7 segmenting the data to generate a plurality of ATM cells;
8 buffering the plurality of ATM cells in a memory device;
9 traffic shaping the buffered plurality of ATM cells; and
10 transmitting the plurality of ATM cells on a network.

1 5. (Amended) A program storage device readable by a machine, tangibly
2 embodying a program of instructions executable by a machine to perform method steps for
3 segmenting asynchronous transfer mode (ATM) data, the program comprises:
4 a first code section to instruct a CPU of a computer to segment data to generate a
5 plurality of ATM cells, the first code section including segmentation instructions
6 implemented in the CPU to perform the operation of segmenting data;
7 a second code section to buffer the plurality of ATM cells in a memory device; and
8 a third code section to traffic shape the buffered plurality of ATM cells.

1 9. (Amended) A method [of performing asynchronous transfer mode (ATM)
2 reassembly functions] comprising:
3 performing asynchronous transfer mode (ATM) reassembly functions with a
4 segmentation and reassembly (SAR) software module implemented in a central processing
5 unit (CPU) including,

6 receiving in an uninterrupted stream a plurality of protocol data units
7 without interrupt in an input buffer, each protocol data unit including a plurality of ATM
8 cells; and
9 retrieving ATM cells from the input buffer until all data corresponding to a
10 payload data unit is retrieved and checking a CRC to determine whether data was received
11 without error.

1 14. (Amended) A program storage device readable by a machine tangibly
2 embodying a program of instructions executable by a machine to perform method steps for
3 reassembly of ATM data, the program comprising:

4 instructions readable by a CPU of a computer to instruct the CPU to
5 reassemble ATM data, the instructions including reassembly instructions implemented in
6 the CPU to perform the operation of the reassembly of data further including,

7 a first code section to receive a stream including a plurality of
8 protocol data units without interrupt in an input buffer, each protocol data
9 unit including a plurality of ATM cells.

1 16. (Amended) The program storage device of claim 14 further comprises:
2 a [second] third section to copy a cell payload from the input buffer into a
3 reassembly buffer.



CONCLUSION

In view of the amendments and remarks made above, it is respectfully submitted that pending claims 1, 4, 5, and 7-16 are in condition for allowance, and such action is respectfully solicited.

The Examiner is invited to contact Applicant's undersigned counsel by telephone at (714) 557-3800 to expedite the prosecution of this case should there be any unresolved matters remaining. To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees in connection with the filing of this paper, including extension of time fees, to Deposit Account 02-2666 and please credit any excess fees to such deposit account.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on: March 22, 2001.

Susan McFarlane 3/22/01
Date